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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,844	11/28/2001	Byron J. Slater	2001P17789US01 (1505-0106)	3190
7590 Harold C. Moore Maginot, Addison & Moore Bank One Center/Tower 111 Monument Circle, Suite 3000 Indianapolis, IN 46204-5115			EXAMINER BHAT, ADITYA S	
			ART UNIT 2863	PAPER NUMBER
			MAIL DATE 08/26/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/995,844	SLATER ET AL.	
	Examiner	Art Unit	
	ADITYA BHAT	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status

1. Claims 1-20 are currently pending in this application.

Information Disclosure Statement

2. No information disclosure statement (IDS) was submitted with applicants response dated 5/13/2009.

Drawings

3. The drawings submitted on 11/28/2001 are in compliance with 37 CFR § 1.81 and 37 CFR § 1.83 and have been accepted by the examiner.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yee et al. (USPN 6,847,300) in view of Mollov et al. (USPN 5,644,271).

With regards to claim 1, Yee et al. (USPN 6,847,300) teaches a arrangement for adjusting a time keeping function of a utility meter, comprising:

at least one sensor configured to detect a temperature (114) at a location proximate a time keeping component, (118) the at least one sensor further configured to generate an output signal representative of the detected temperature ;(figure 1)

a processing circuit (112) configured to adjust at least one clock maintained by the time keeping function of the meter in dependence upon the output signal from the at least one sensor. (figure1)

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With regards to claims 2, 12 and 20, Yee et al. (USPN 6,847,300) teaches a crystal oscillator. (Col. 3, lines 47-48)

With regards to claims 3, 8-9 and 17 Yee et al. (USPN 6,847,300) teaches a digital signal processor (29) and a microcontroller (112)

With regards to claim 4 and 13, Yee et al. (USPN 6,847,300) teaches at least one sensor comprises a diode. (134)

With regards to claim 5, Yee et al. (USPN 6,847,300) teaches the diode is coupled to the processing circuit through an analog to digital converter. (112)

With regards to claim 6 and 14, Yee et al. (USPN 6,847,300) teaches a real time clock output pulse after receiving N timing signals; and change N based on the output signal from the at least one sensor. (col. 6, lines 43-45)

With regards to claim 7, Yee et al. (USPN 6,847,300) teaches electricity meter comprising:

- a source of commodity consumption information ;(102)

- at least one sensor configured to detect a temperature at a location proximate a time keeping component, the at least one sensor further configured to generate an output signal representative of the detected temperature ;(114)

- a processing circuit coupled to receive commodity consumption information from the source of commodity consumption information, the processing circuit (112) operable to generate metering data based on the commodity consumption information and real time clock information, (118) (Col. 2, lines 28-34)

With regards to claim 10, Yee et al. (USPN 6,847,300) teaches the processing circuit includes at least two processors. (112,132; figure 1)

With regards to claim 11, Yee et al. (USPN 6,847,300) teaches the source of commodity consumption information comprises a source of electrical energy consumption information (col. 2, lines 13-17).

With regards to claims 15 and 18, Yee et al. (USPN 6,847,300) teaches the source of commodity consumption information includes a current sensing device, the current sensing device having a temperature dependent characteristic that affects the accuracy of the commodity consumption information; the utility meter further comprises at least one additional sensor disposed proximate to the current sensing device, the at least one additional sensor configured to detect a temperature at a location proximate the current sensing device, the additional sensor further configured to generate a second output signal representative of the detected temperature; and the processing circuit is further configured to adjust the energy consumption information in dependence upon the output signal from the at least one additional temperature sensor. (figure 1)

With regards to claim 16, Yee et al. (USPN 6,847,300) teaches the source of commodity consumption signals further comprises:

- a plurality of voltage sensors operably coupled to a plurality of power lines, the plurality of voltage sensors operable to generate analog voltage measurement signals representative of voltage waveforms on the plurality of power lines; a plurality of current sensors operably

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coupled to a plurality of power lines, the plurality of current sensors operable to generate analog current measurement signals representative of current waveforms on the plurality of power lines; at least one analog to digital converter operable to receive the analog voltage measurement signals and the analog current measurement signals and generate digital measurement signals there from; a digital signal processor operably connected to receive the digital measurement signals from the at least one analog to digital converter, the digital signal processor operable to generate the energy consumption information from the digital measurement signals. (figure 1)

With regards to claim 19, Yee et al. (USPN 6,847,300) teaches a method for adjusting a time keeping function of a utility meter, comprising:

- (118) generating timing signals using a time keeping component that generates timing signals;
- detecting a temperature at a location proximate to the time keeping component ;(114)
- generating an output signal representative of the detected temperature; (114)

6. Yee et al. (USPN 6,847,300) does not appear to teach adjusting/varying clock/timing information in dependence on the output signal that is representative/function of temperature

Mollov et al. (USPN 5,644,271) teaches adjusting/varying clock/timing information in dependence on the output signal that is representative/function of temperature (Col. 2, lines 24-27)

It would've been obvious to one of ordinary skill in the art at the time of the invention to modify the Yee et al. invention to include adjusting/varying clock/timing information in dependence on the output signal that is representative/function of temperature in order to provide an accurate time source in the event the . (Col. 9, lines 19-20)

Response to Arguments

7. Applicant's arguments filed 5/13/2009 have been fully considered but they are not persuasive.

Applicant is reminded that during patent examination, the pending claims must be "given the broadest reasonable interpretation consistent with the specification." Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969).

While the meaning of claims of issued patents are interpreted in light of the specification, prosecution history, prior art and other claims, this is not the mode of claim interpretation to be applied during examination. During examination, the claims must be interpreted as broadly as their terms reasonably allowed. This means that the words of the claim must be given their plain meaning unless applicant has provided a clear definition in the specification. In re Zletz, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989).

In this instance applicant argues that:

1) the Yee reference does not teach that the time source has a temperature dependent accuracy issue that would need adjustment.

1 response) It is well known in the art that electronic devices are susceptible to temperature variations. Yee teaches alarm conditions in response to a temperature condition. (Col. 6, lines 1-6) Further the Yee reference monitors the power meter temperature which the clock is a part of and disconnects the switch in response to the temperature being above a certain threshold. (211;figure 2)

2) there is no evidence on the record that indicates that the level of inaccuracy of crystal oscillators would adversely affect the use of the real-time clock in Yee.

2 response) Applicants claimed invention provides no evidence of the level of inaccuracy of a crystal oscillator. The claim merely states the time keeping component which is part of the meter is varies with temperature.

3) no reason is given for maintaining the clock during a power outage.

3 response) there is no mention of a power outage in the claims.

4) there is no indication that use of the real-time clock in Yee requires the clock to have a level of accuracy not achievable using conventional means of restoring the real-time clock in a meter after a power outage.

4 response) the claims provide no indication of what level of accuracy is required by the time keeping device.

5) Yee, by contrast, does not appear to have any issues with the accuracy of its real-time clock due to temperature variation

5 response) Yee reference monitors the power meter temperature which the clock is a part of and disconnects the switch in response to the temperature being above a certain threshold.
(211;figure 2)

6) the prior art does not teach or suggest a processing circuit configured to generate metering data based on the commodity consumption information and real time clock information

6 response) Col. 2 lines 28-35 teaches a power meter measuring the amount of electrical power being used by a customer. Further this section discloses a controller 112, a temperature sensor 114 and a clock 118.

7) the prior does not teach metering data is generated based on a real-time clock

7 response) Yee teaches a clock 118;figure 1. Further it is well known in the art that when providing a service such as power to a customer recording the amount of time the power was consumed is common in the art. Further Yee teaches that the clock reference is a real-time clock used to provide a time reference. (Col. 3, lines 43-47)

8) processing circuit configured to generate metering data based on the commodity consumption information and real time clock information

8 response) Col. 4, lines 23-35 teaches electrical energy metering and providing current and past usage data. Metering data based on the commodity consumption information and real time clock information clearly reads on providing current energy usage.

9) Yee does not teach or suggest adjusting either the real-time clock *or* commodity consumption information based on a sensed temperature value.

9 response) 205,211; Figure 2 of the Yee reference clearly teaches adjusting the commodity consumption in response to a temperature being above a threshold.

10) Examiner has not provided any source that teaches *adjusting commodity consumption values* based on temperature.

10 response) 205,211; Figure 2 of the Yee reference clearly teaches adjusting the commodity consumption in response to a temperature being above a threshold.

11) Nothing in Fig. 1 could possibly be argued to suggest adjusting energy consumption information based on the output of a temperature sensor.

11 response) 205,211; Figure 2 of the Yee reference clearly teaches adjusting the commodity consumption in response to a temperature being above a threshold.

Conclusion

8. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ADITYA S. BHAT whose telephone number is (571)272-2270.

The examiner can normally be reached on M-F 9-5:30.

10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aditya Bhat/
Examiner, Art Unit 2863
August 14, 2009